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SCORES OBSOLETE FORGING METHODS; BREAK BOTTLENECK IN BEARING MANUFACTURE

URGES MODERNIZATION OF EQUIPMENT -- Leningradskaya Pravda, No 247, 19 Oct 49

A. Potekhin, chief of the press forging shop of the Leningrad "Svoboda" Plant, complains that, notwithstanding the publicizing of the superiority of forgings produced on crank presses over hammered products, the majority of Leningrad shops continue to use the old method. He cites the following examples:

The huge forging shop in the Metal Plant imeni Stalin is equipped with steam-driven hammers at least 50 years old, designed to produce tools of many types in large and small series by the use of cushion dies. Experience shows that this method requires highly skilled labor and is not very productive. Here, a few swivel crank presses would perform the work much more efficiently.

The forging shop in the Plant imeni Lenin is similar to the preceding shop in capacity and equipment. Here, too, the old, obsolete technique prevails. Turbine vanes are made of expensive alloyed steel. They are produced in large series and leave the hammers in the form of rectangles. In the machine shops, 65 percent of the metal is removed in shaving. Yet turbine blades could be produced with dimensions approximating the finished product, and at a reduction of about 75 percent in machining time.

The forging shop in the Plant imeni Engels has five pneumatic hammers and two presses, one a friction type and the other eccentric. The shop turns out large series products using cushion dies under the hammers. However, all the processes could be performed on the friction presses without the aid of hammers. If this were done, labor productivity would increase fivefold and power expenditure would be reduced sixfold.

Application of the new method requires no special theoretical research or capital outlay. It can and should be done immediately. At present, the forging shops are considered preparatory units; they must become basic shops putting out products that are nearly or entirely finished.

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INSTRUMENT PLANT DOUBLES OUTPUT -- Moskovskiy Bol'shevik, No 247, 19 Oct 49

The Moscow Instrument Plant of the Ministry of Machine and Instrument Building has doubled its output as a result of continuous production methods introduced at the end of 1948. At present it has seven conveyers and four carriers operating, with a total length of 320 meters. The production cycle for a given instrument has been reduced 13 times. Production per square meter of floor area, as compared with 1948, has been doubled. Production flow in this plant is rhythmical, all shops working with strict conformity to schedule.

The plant manufactures 250 different types of instruments. It has just completed the year norm, and by the end of the year expects to turn out a great number of instruments above plan. This year it has also reduced production costs by 13.1 percent, as against 6.5 percent required by the norm. As result, it has made a profit of 1,599,000 rubles above plan. Altogether, its profit for 9 months of 1949 amounts to 9 million rubles.

CUT TIME, BOOST BEARING PRODUCTION -- Leningradskaya Pravda, No 252, 25 Oct 49

Up to now, the machining of bearing housings in the "Vulcan" Plant has taken eight operations, with a maximum of 20 parts being turned out per shift. By combining a series of operations, it is now possible to do the job in four operations, speeding up the work and breaking the bottleneck on the assembly line. One operator has succeeded in putting out 102 parts during one shift.

Machining of rollers, on the other hand, has been broken down into separate operations of roughing, facing and centering, and, finally, finishing. As a result, 15-20 more are produced per shift.

CARDING MACHINES GO INTO SERIES PRODUCTION -- Leningradskaya Pravda, No 237, 7 Oct 49

The "Vulcan" Plant is putting out an experimental series of high-duty carding machines.

New drying units for finished parts, using infrared rays, will be in operation in the plant by 7 November. A conveyer will be set up in the machine assembly shop, and a selective dispatching service will be instituted.

WORK IMPROVING AT TULA PLANT -- Trud, No 249, 21 Oct 49

Great changes have taken place in the Tula Machine-Tool-Building Plant during the postwar years. High-speed cutting methods have been introduced. More advanced machinery has appeared in the shops. New, higher norms have been inaugurated, and are being fulfilled by all but 3.1 percent of the workers.

All this is due mainly to the efforts of the enterprising Plant Wages Commission, headed by N. S. Kuznetsov. This commission has systematically collected the thousands of suggestions for improvement submitted by workers and been instrumental in putting many of them into effect. It has organized honor rolls in each shop, Stakhanovite schools, and inventor brigades. There are now 27 such brigades in the plant helping to solve the complex problems of production.

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SPEED PRODUCTION WITH NEW MACHINES -- Sovetskaya Belorussiya, No 212, 25 Oct 49

The production cycle on saw production at the Minsk Tool Plant has been shortened, and 1,257 kilograms of high-speed saved in one year. The cutter shop has already fulfilled the year plan, and the plant has accelerated the turnover of working capital 12 days, releasing 600,000 rubles in the process.

On a new special machine tool, undercutting is performed simultaneously on 48 segments of cut-off saws, distributed in two rows. This has shortened the production cycle. Milling of the outer edge and groove has been broken down into two separate operations, boosting productivity in this operation 20 percent.

By applying a set of millers in milling hack saws, labor consumption has been cut one half for the operation.

Productivity in fusing tips of hard alloy to cutter holders has been increased 350 percent through the use of high-frequency current.

URGE EXTENSION OF CONVEYER METHOD -- Leningradskaya Pravda, No 236, 6 Oct 49

Before the war, operations such as forming, which were not considered adaptable to conveyer production, were comparatively few. The appearance of high-speed machine tools has resulted in a sharp increase of nonconveyer operations. However, the fact that machine tools have been developed to a point where parts may be interchanged easily should help extend the conveyer production method, rather than limit it. With the present degree of specialization, it should be possible to select parts that can be worked on one line of machine tools at a definite rate of speed

In a number of Leningrad plants advances in technology have not been used to this end. At the Plant imeni Karl Marx, the conveyer method for the machining of spare parts for spinning looms and for the grooving of cylinders has been in the process of installation, but the work has dragged for many years for lack of a rationally elaborated technique.

The "Lenetz" Plant, also, has tried to organize the production of certain parts in accordance with conveyer methods but has been hampered by a lack of interchangeable parts. For example, the gears to be machined are not standardized; some are simple, requiring only milling, while others are of the double cylinder type.

USE NEW MEASURING INSTRUMENTS -- Moskovskiy Bol'shevik, No 252, 25 Oct 49

The Kalibr Plant fulfilled the Five-Year Plan in 3 years, 7 months, and 9 days, attaining a level of production 2½ times greater than that set for 1950. Productivity of labor is 2.3 times the prewar figure.

A change to rolling methods in making rings has saved the plant 67 tons of metal and 30,000 cubic meters of gas. New machine tools, which mark scales on instruments on the pressure principle, have raised the productivity of labor in this operation over 80 times. As compared with 1940, slide-gauge production has risen 10 times, production of micrometers 15 times, and rulers 10 times.

Among new devices put into operation in the plant in the last 6 months are a machine for sorting roller bearings, piston rings, and other parts, an instrument which measures parts to a precision of 2 microns, and a special instrument allowing a measurement accuracy of .03 micron.

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NEW METHODS INCREASE PRODUCTIVITY, PROFITS -- Kommunist, No 252, 25 Oct 49

The continuous-line method instituted in the Machine-Tool-Building Plant imeni Dzerzhinskiy for the assembly of machine-tool units has raised the productivity of labor 25 percent. Elevators for lifting heavy parts have been installed in the shops, and models and charts have been made which illustrate the method of changing from hand to machine methods in moulding.

The 9-month plan for gross production and output of machine tools has been exceeded. Turnover of working capital has been accelerated, cost of production has been lowered, and an above-plan capital increment of 315,000 rubles has been realized.

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